

**Notice of Allowability**

Application No.

10/026,050

Applicant(s)

ENDO, TAKAYUKI

Examiner

Art Unit

Scott A. Rogers

2627

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-33.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

  
SCOTT ROGERS  
PRIMARY EXAMINER

***Examiner's Reasons for Allowance***

The following is an examiner's statement of reasons for allowance:

Referring to claims 1-33, the prior art searched and of record neither anticipates nor suggests in the claimed combinations, detecting an isolated portion or isolated cluster of pixels in a predetermined image area based on a comparison of a first threshold to pixel values of an edge in a first direction in the predetermined image area to, and a comparison of a second threshold to a difference between an average of pixel values from outer lines and inner lines in a second direction perpendicular to the first direction.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Cited Art***

The art made of record and not relied upon is considered pertinent to applicant's disclosure.

Avinash (US 6208763 B1) discloses a method for enhancing an image defined by a plurality of discrete pixels including the step of identifying a group of structural pixels representative of structures of interest and a group of non-structural pixels representative of non-structural regions in the image, the structural pixels being identified by determining gradient values for each pixel, identifying a gradient threshold

value and identifying pixels having a desired relationship to the gradient threshold value, the gradient threshold value being identified by comparing gradient values for the pixels to a desired value and by comparing gradient directions for the pixels to one another, and by counting pixels based upon the comparisons, and the step of eliminating isolated groups of adjacent pixels smaller than a desired size from the group of structural pixels.

Rushby et al (US 4389677 A) disclose a method and apparatus for removing erroneous data elements from digital images by systemically moving a window memory over the entire area of an image. Each data element in the image is examined with respect to neighboring elements by comparing the contents of the window with a set of masks to determine if a certain data element should be altered. Referring to FIGS. 6A and B, masks 50 and 52 are fundamental masks used for isolated unit pixel removal and addition. Mask 50 operates to remove a single dark pixel from a light area of the image. Mask 52 fills a hole created by a missing pixel in the center of a dark area on the image. Masks 54 through 68, inclusive, perform edge cleaning functions upon the characters contained in digital images. Mask 54 through 60, inclusive, operate to remove an unwanted pixel from the edge of pixel group, while masks 62 through 68, inclusive, insert a missing pixel into a group of pixels. Masks 70 through 76, inclusive, act upon isolated two pixel groups of noise, while masks 78 through 116, inclusive, perform pixel removal in cases involving isolated three pixel groups of various orientations. Masks 118 through 132, inclusive, involve corner enhancing operations, with masks 118 through 124, inclusive, acting to remove an extra pixel on an inside

corner of a figure, while masks 126 through 132, inclusive, add a missing pixel to an outside corner of a figure.

### ***Drawings***

The 27 sheets of formal drawings received on 27 February 2002 have been accepted and approved by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott A Rogers whose telephone number is 571-272-7467. The examiner can normally be reached Monday through Friday 6:00am-2:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached at 571-272-7471.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC2600 Customer Service at 571-272-2600. Official correspondence by facsimile should be sent to 571-273-8300. The USPTO contact Center phone numbers are 800-PTO-9199.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11 December 2005

  
SCOTT ROGERS  
PRIMARY EXAMINER